Claim 6 should now be allowable, given the amendment of claim 1.

Claim 8 is cancelled.

Reconsideration and withdrawal of the obviousness rejection of claim 9 is requested for the following reasons:

Applicants submit that Fouss only vaguely describes how the product is fabricated, but, even so, from that one can conclude it is not injection molding. The Fouss employer, Hancor, is a large manufacturer of corrugated plastic tubing, which it is also well-known is made by extrusion. Col. 1, line 63+ refers to the continuously moving tubing, characteristic of extrusion. Col. 3, lines 65+ describe how the top part of the conduit can be bent. This implies forming a corrugated sheet and bending it to an arch shape. Col. 4, lines 22+ describe how the base of the chamber is a sheet which is bonded to the arch shape part. As vague as the description may be, it does not describe injection molding, and does not suggest anything about the nature of the mold and process. The description teaches away from injection molding, to extrusion.

And, Fouss shows bumps which project both inwardly and outwardly (Fig. 2 vs. Fig. 6). Obviously, different injection molds would be needed to make the two types of chambers. In contrast, if the extruded/folded corrugated sheet technique is used, the two configurations are easy.

Furthermore, Fouss clearly teaches to first form bumps 72, and then to make them into perforations 52, 54 by means of a second cutting operation. See Col. 5, line 13 plus. (Perforations are by definition passages through the sidewall.) In comparison, claim 9 embraces the a hitherto unknown methodology for chambers, wherein injection mold core projections withdraw inwardly during the molding operation.

Lastly, applicant has amended claim 9 for more particularity to the inward flare perforation type of chamber.

Claim 10 and 11 were objected to. Applicants hope examiner will withdraw the rejection to parent claim 9, per above. If not, applicant will resubmit the claims in independent from.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner of Patents, Box 1450, Alexandria VA 22313 on October 5, 2004

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Specification Paragraphs Showing Where Changes Have Been Made on October 5, 2004

Page 4 bottom paragraph

This application has relation to U.S. patent application serial number 10/677,938 of R. ~~(Atty. No. 2229) of J.~~ Brochu et al., entitled "Corrugated Leaching Chamber" filed on October 1, 2004~~even date herewith~~. The Brochu et al. application describes an improved corrugated leaching chamber having a continuous curve arch shape cross-section and a thin slot-perforated sidewall, where slots preferably are inwardly flared. _This present application also has relation to two U. S. patent applications of Krueger et al., namely No. 09/849,768 filed May 4, 2001 and No. 10/402,408, filed March 28, 2003. The Krueger applications describe, for a stormwater chamber, a corrugated arch cross section shape and base flange construction, which are useful in the present invention. The description and drawings of the foregoing applications, particularly with respect to what they teach about the aforementioned features, are hereby incorporated by reference.

Page 6, first full paragraph

In a preferred embodiment, wall thickness varies with elevation. With reference to Fig. 1 and Fig. 2 (discussed below), in a preferred configuration of chamber and sidewall, the centerline axis L of typical slot 30 runs at angle SA of 12 degrees to the horizontal H. The top and bottom of the slots are sloped relative to axis L, at nominal 6 degree angles T. Thus, the included angle of between the slot top and bottom surfaces, i.e., the flare, is about 12 degrees. The slot height h_e, measured vertically, at the slot sidewall exterior, is about 0.070 inch. The height of the slot at the inside of the sidewall will range between about 0.105 to about 0.200 inch, reflective of the combination of flare and varying wall thickness. The edge to edge spacing of adjacent slots in the vertical direction is about 0.100 inch, such dimension varying somewhat with the slot elevation from the base. The basic axis L is the mean line of the slot. A slot having a tapered top and bottom_that is symmetrical about the basic axis L is preferred. Asymmetric slot tapers are within contemplation. While the flared top or bottom of the slot are preferably planar, curved or stepped top and bottom surfaces, for which the mean path comports essentially with the basic axes of the flared openings described herein, may be made.

Page 5, last paragraph

Fig. 1 shows a segment through a sidewall of a chamber, more fully described in the related Brochu et al. application, and the preferred inward flare slot configuration of the present invention. (As shown in Fig. 4 therein, the chamber has perforated sidewalls and a solid top.) It also illustrates some significant parameters of sidewall perforations. The top and bottom surfaces of slot 30 diverge with slot depth, moving from exterior sidewall surface to interior surface. (Depth may alternately be referred to as the through-sidewall length). Slot height h changes with slot 30 depth; the slot height h_e at the exterior wall surface is the minimum slot height. Thus, slot 30 is called an inwardly flared or inward flaring slot. The average height and width may vary from slot to slot within any chamber and amongst slots of different chambers as described in the related patent application. Generally, the slots are horizontal slots, that is the width is greater than the height. The foregoing invention principles may be applied to other shape perforations than slots, for instance, to square, round and generally oblong openings.

Page 8, second full paragraph

Fig. 5 shows in cross section a portion of the sidewall 40 of preferred design chamber, which runs from base flange 26 to un-perforated top 42. The chamber sidewall thickness t varies from about 0.150 inch at the bottom slot to about 0.175 at the top slot. The exterior surface slot height h_e varies from about 0.070 inch for the bottommost slots to about 0.090 for the topmost slots, so that the design criteria STA_c of 26 degrees is met by all the slots. Theoretical STA for the highest slot is about 16 degrees, in the absence of rounding of the edges of the slot top and bottom, at the interior and exterior. When such edges are provided with an about 0.020 radius the effective depth to the slot is shortened and the STA for the top slot becomes about 26 degrees. Likewise, the wall thickness at the bottom of the chamber is sufficient to compensate for the shortening of slot depth caused by edge rounding.

Page 9, first full paragraph

As described above, preferably the basic angle SA of axis L of a slot or other perforation runs downwardly~~ as runs~~, from the interior to the exterior of the chamber, most preferably at an angle of 12 degrees from horizontal. The inside pull technique is particularly useful to achieve that, when there is a fin 27, or even when the base flange 26 extends laterally outwardly a large distance. Other angles SA may be used in the invention. Angle SA, as shown, will be such that the downward slope of axis L is greater than zero. Preferably angle SA will be between 6 and 14 degrees.

Change the Abstract:

A leaching chamber has sidewall perforations which ~~slope downwardly from interior to exterior, and which~~ flare inwardly, so that the smallest perforation~~slot~~ dimension is on the exterior surface of the sidewall. The basic axes of the perforations run downwardly toward the chamber base, as the axes run from the inside to outside of the chamber. Mold cores having inwardly retracting slides, and which move in complex ways, are used to form the chamber. Thus, perforations are present down near the base flange of the sidewall, even though the base flange has an upwardly extending fin.

Replacement Specification Paragraphs - October 5, 2004

Page 4 bottom paragraph

This application has relation to U.S. patent application serial number 10/677,938 of R. Brochu et al., entitled "Corrugated Leaching Chamber" filed on October 1, 2004. The Brochu et al. application describes an improved corrugated leaching chamber having a continuous curve arch shape cross-section and a thin slot-perforated sidewall, where slots preferably are inwardly flared. This present application also has relation to two U. S. patent applications of Krueger et al., namely No. 09/849,768 filed May 4, 2001 and No. 10/402,408, filed March 28, 2003. The Krueger applications describe, for a stormwater chamber, a corrugated arch cross section shape and base flange construction, which are useful in the present invention. The description and drawings of the foregoing applications, particularly with respect to what they teach about the aforementioned features, are hereby incorporated by reference.

Page 6, first full paragraph

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Page 5, last paragraph

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Page 8, second full paragraph

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